DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-003921
Date Inspected: 12-Sep-2008

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 630
OSM Departure Time: 1530
Location: Shanghai, China

CWI Name:	Lvliqing and Hu Wei Qing	**CWI Present:**	☑ Yes ☐ No
Inspected CWI report:	☐ Yes ☑ No ☐ N/A	**Rod Oven in Use:**	☑ Yes ☐ No ☐ N/A
Electrode to specification:	☑ Yes ☐ No ☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes ☐ No ☐ N/A	**Verified Joint Fit-up:**	☑ Yes ☐ No ☐ N/A
Approved Drawings:	☑ Yes ☐ No ☐ N/A	**Approved WPS:**	☑ Yes ☐ No ☐ N/A
		Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: OBG and SAS Tower Fabrication

Summary of Items Observed:

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

Bay 7: OBG - Floor Beam Sub Assembly
The QA Inspector randomly observed ZPMC welder Duan Xin Zhi ID Number 050502 utilizing the SAW Process in the 1G (Flat Groove) Position with ZPMC WPS WPS-B-T-2221-B-L2c-S-2, to weld the fill pass on 12mm thick plate splice butt joint of floor beam sub-assembly FB011-011-023. QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring weld parameters.

FCAW(2G)CJP welding repair on floor beam FB002-006-045 web plate to flange tee joint due to UT reject per welding repair report B-WR945 following procedure WPS-345-FCAW-2G(2F)-REPAIR. ZPMC welder Zhang Qingquan ID#044774 was seen performing the repair.

Bay 8: Tower Diaphragm
The QA Inspector randomly observed ZPMC Welders ID #066028, ID #045218, utilizing the Shielded Metal Arc Welding (SMAW) Process in the 3G (Vertical Groove) to tack weld 40mm thick web plate to 60mm stiffener plate tee joint NSD1-SA334B/B-weld joints 15 and 16 following WPS-B-T-3313-Tc-P5.

Preheating to >180 degree C prior welding fillet weld connection of tower diaphragm flange to diaphragm plate WSD1-SA290 using ceramic thermal blanket was observed. SMAW fillet touch up welding on tower diaphragm plate to diaphragm flange ESD1-SA301B/B using THJ506 electrode this QA also observed.

This QA observed two ZPMC welders, ID #066734, ID #048714 utilizing the FCAW Process in the 2F (Horizontal) Position with a 1.4mm diameter electrode, filler metal brand K-71TSR, semi automatic with ZPMC WPS WPS-B-T-4132 to weld fillet fill pass on fillet weld connection between tower diaphragm plate to diaphragm flange WSD1-SA290-2. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Heat straightening was also observed on 65M Top plate marked P970(S) due to mill induced distortion. Natural gas was used with thermal heat input of less than 600 degree C following procedure HSR1(T)-3230. Heat straightening was also observed on tower double diaphragm ESD1-SA301A/B weld joints 11A, 11B, 12A and 12B due to welding distortion. Natural gas was used with thermal heat input of <600 degree C following procedure HSR1(T)-4100.

Summary of Conversations:

No significant conversation ocurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer